

Dialogue on the Growing Array of Vulnerability Assessment Frameworks

International Development and Domestic VA's: Towards Sharing Best Practices and Experiences



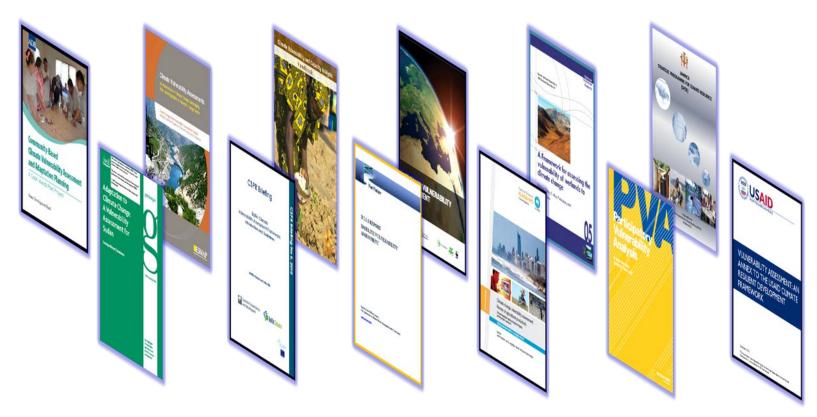
Outline

- Domestic vs. International Development VA's:
 - Common Goals and Approaches
 - Contextual and Methodological Differences
- Example of VAs for International Development
- Discussion





Large and Growing Array of VA Frameworks



- Sector
- Decision type
- Detail

- Data availability
- Bottom-up/top-down
- Funding level



Common Fundamental Goals of International Development and Domestic VAs

- Raise awareness amongst key stakeholders
- Determine how climate may affect an existing/planned strategy or program
- Identify critical, priority, and differentiated vulnerabilities
- □ Identify areas or sectors where vulnerability is particularly consequential, and adaptation actions are most needed
- Inform the design of adaptation actions to reduce vulnerability



Commonalities in Approach and Planning

- □ Role of participatory approaches and stakeholder buy-in
- Need to identify the right level of detail, scope, target audience at the outset
- Need to communicate findings appropriately





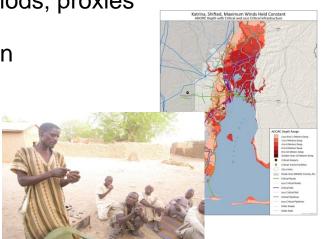
How do they differ?

- Context matters! Developing countries tend to have significant differences in <u>vulnerability</u>, including...
 - ☐ Higher level of current exposure and sensitivity
 - □ Lower level of adaptive capacity, including wealth, services, training, etc.
 - More differentiation in social vulnerability relative to developed countries
 - Large rural populations, disconnected from services
 - ☐ At the same time, rapid urbanization
 - Importance of community safety nets
 - More dependence (economic, individual) upon natural resources



How do they differ?

- Context matters! Developing countries tend to have significant differences in <u>ability to conduct vulnerability assessments</u>, including...
 - Less climate and non-climate data for characterizing vulnerability vs. freely accessible, high resolution data
 - ☐ Greater reliance on less data intensive methods; proxies
 - Less technical training; less higher education
 - Greater dependence on foreign funding





How do they differ?

- □ Context matters! Developing countries tend to have significant differences in <u>action orientation</u>, including...
 - Perception (and reality) of immediate threat vs. view of distant threat
 - More urgency to take action vs. to protect embedded interests
 - Greater focus on adaptation, given smaller role in cause of climate change
 - Greater focus on communities, saving lives, securing livelihoods and basic needs vs. securing assets
 - High focus on low cost/low tech solutions
 - Greater dependence on donor support



Kazakhstan, Source: USAID



Examples of Vulnerability Assessment Frameworks

for International Development

- Climate Vulnerability and Capacity Analysis (CVCA) Handbook
 - CARE
- WETwin Vulnerability Assessment Process
 - Ramsar Convention on Wetlands
- USAID VA Guidance
 - In progress...





Climate Vulnerability and Capacity Analysis (CVCA) Handbook

- Developed by CARE to delineate socio-economic aspects of vulnerability to climate change
- Objectives
 - Analyze vulnerability & adaptive capacity at <u>community</u> level through a combination of community knowledge and scientific data
- Distinctive features include:
 - Community-Based Adaptation (CBA), including consideration of: (a) climate-resilient livelihoods strategies; (b) disaster risk reduction strategies; (c) capacity development; (d) advocacy and social mobilization
 - Reliance on participatory tools (e.g., hazard mapping; seasonal calendars; historical timelines; etc.)



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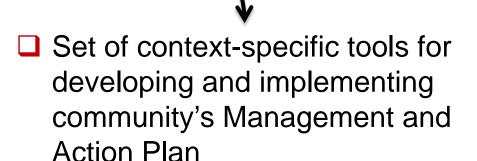
Project of Adaptation to the Impact of Rapid Glacier Retreat in the Andes (PRAA) – CARE

- Objective of PRAA
 - Strengthen resilience of local ecosystems and economies from impacts caused by rapid glacier retreat in the tropical Andes
 - PRAA Pilot Areas in Peru, Bolivia, and Ecuador
 - Micro-river basin of Papallacta, Ecuador
 - 500 families
 - Limited investment in education and health
 - Low level of social organization
 - No sewer system each household takes care of its own wastewater



CVCA Process

- Brought together local knowledge and scientific data
- Evaluated and framed individual tools within CVCA Handbook with respect to creating community plans





Results

- Established a qualitative baseline
- Identified community-based adaptation components/strategies not considered within original project designs to improve food security
- □ Farmers, including illiterate women, learning to use natural resources and agroforestry techniques to adapt to unpredictable, intense, and changing moisture, wind, and temperature conditions





A Framework for Assessing the Vulnerabilty of Wetlands to Climate Change (Gitay et al.)

The framework has the following elements:

- Establishing present status and recent trends: description of the wetland (biophysical and social), the present and recent pressures and conditions
- Determining the wetland's sensitivity and adaptive capacity to multiple pressures
- Developing responses: determining approaches to achieve the desired outcomes
- Monitoring and adaptive management: determining the necessary steps to ensure the path to the desired outcomes.



WETwin Vulnerability Assessment Process in the Inner Niger Delta, Mali

Context

- Food production within Inner
 Niger Delta linked to intensity of seasonal inundation of its floodplain
- Changing river flows is reducing flood intensity and threatens agriculture in Delta for 1,000,000 people
- Little quantitative data for area





WETwin Process

- Apply simulations and expert judgment to assess impacts on different aspects of the system under different management options
- Apply downscaled global change scenarios to current system conditions
- Apply range of management options to scenarios
- Determine adaptive capacity of system by comparing the system state with and without the application of each management option



Results

■ Because of seasonal differences in river flow, vulnerability was assessed separately for wet and dry seasons

		Impact on:			
Management option	Season	Human health & water related disease	Ecosystem functions		Water retention & purification
Maximise Irrigation	Wet	0	-		0
	Dry				-
Maximise energy production	Wet				-
	Dry		+	-	+
Maintain minimum flows	Wet	0	0		0
	Dry		++		++

Gitay et al. 2011



USAID Climate Change Resilient Development Mainstreaming Approach

Requirements for development

Stressors/Const

No

Adaptation actions

Development objectives

Requirements for development objectives

Inputs Enabling environment

Stressors/Constraints/Impediments

Climate Non-climate

Solutions

Adaptation actions to reduce climate stresses
Actions to reduce non-climate stresses
Actions with co-benefits

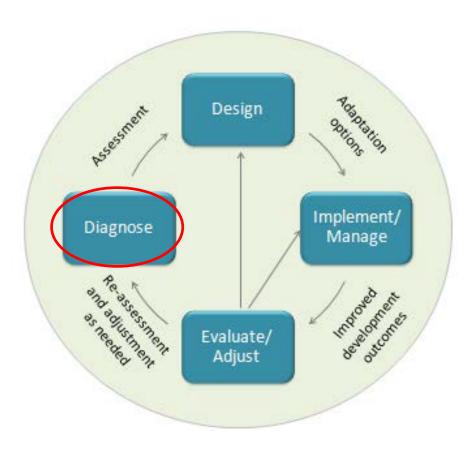
Resilience Improved





USAID/CCRD Vulnerability Assessment Guidance

- Provides critical input into the *Diagnose* stage of USAID's Climate Resilient Development framework
 - Framed by development goal
 - Targeted given identified needs, time and resource constraints
 - Locally owned
 - Considers critical climate and non-climate stressors
 - Applicable across scales





USAID/CCRD Vulnerability Assessment Process

- 1. Preparing for a successful assessment
 - What is the scope and objective of the assessment?
- 2. Assessing exposure
 - Which inputs and conditions are exposed to climate and non-climate stresses? Where and when are they exposed?
- 3. Assessing sensitivity
 - Which systems are sensitive to climate and non-climate stresses, and why?
- 4. Assessing adaptive capacity
 - What abilities do people or ecosystems have to withstand or cope with climate and non-climate stresses?
- 5. Rolling up the results to understand vulnerability
 - Integrating and applying the understanding of exposure, sensitivity, and adaptive capacity



Thanks!